

Media	Concentration, % by weight	Test Temperature °F (°C)	Average Corrosion Rate per year, mils**			
			C-22 ^a alloy	C-276 alloy	C-4 alloy	625 alloy
Acetic Acid	99	Boiling	Nil	< 1	Nil	< 1
Ferric Chloride	10	Boiling	1	2	140	7325
Formic Acid	88	Boiling	< 1	1	2	9
Hydrochloric Acid	1	Boiling	3	13	25	1
	1.5	Boiling	14	32	64	353
	2	194 (90)	Nil	1	31	Nil
	2	Boiling	61	51	82	557
	2.5	194 (90)	< 1	12	34	72
	2.5	Boiling	141	85	44	605
	10	Boiling	400	288	228	642
Hydrochloric Acid + 42 g/l Fe ₂ (SO ₄) ₃	1	200 (93)	2	41	—	238
	5	150 (66)	2	5	3	2
Hydrochloric Acid + 2% HF	5	158 (70)	59	26	34	123
Hydrofluoric Acid	2	158 (70)	9	9	17	20
	5	158 (70)	14	10	15	16
P ₂ O ₅ (Commercial Grade)	38	185 (85)	2	9	—	1
	44	240 (116)	21	100	—	23
	52	240 (116)	11	33	—	12
P ₂ O ₅ + 2000 ppm Cl	38	185 (85)	1	12	—	2
P ₂ O ₅ + 0.5% HF	38	185 (85)	7	45	—	9
Nitric Acid	10	Boiling	< 1	7	7	< 1
	65	Boiling	134	888	217	21
Nitric Acid + 6% HF	5	140 (60)	67	207	204	73
Nitric Acid + 25% H ₂ SO ₄ + 4% NaCl	5	Boiling	12	64	97	713
Nitric Acid + 1% HCl	5	Boiling	< 1	8	11	1
Nitric Acid + 2.5% HCl	5	Boiling	2	21	26	< 1
Nitric Acid + 15.8% HCl	8.8	126 (52)	4	33	114	> 10,000

^aAverage of 4-10 tests.

**To convert mils per year (mpy) to mm per year, divide by 40.

FIG 5

